

Space-Time Crisis Composite

Space-Time Crisis Composite:

for rapid response to current, evolving and pending natural and man-made emergencies.

- Critical Event Tracking
- Predictive Path Analysis
- Guided Remedial Procedures
- Situational Awareness
- Root Cause Analysis
- Asset Impact Analysis
- Proactive Crisis Readiness

Critical Event Tracking

Track hurricanes, lightning, floods, cloud cover, wildfires, and earthquakes using a space-time dashboard

Predictive Path Analysis

Predict trajectories for natural disasters and identify critical infrastructure assets in the path

Guided Remedial Actions

Display online pop-up scripts to guide execution of remedial action schemes mandated by regulations

Situational Awareness

Interface with SCADA systems to display 'live,' location-based performance data during crisis events

Root Cause Analysis

Play back events on-screen to support root cause analysis and gain insight to preventive actions

Regulatory Compliance

Automate NERC/CIP/FERC/CFATS regulatory compliance and reporting

Impact Analysis

Conduct instant analysis of service disruptions arising from weather and other external and non-system events.

Crisis Readiness Assessment

Identify areas of significant vulnerability with configurable risk analytics dashboards

Major Vertical Markets Served:

- Utilities (Power, Gas, Water, Public Sector, Municipalities)
- Process Manufacturing
- Oil & Gas
- Telecommunication
- Transportation

Space-Time Crisis Composite displays the current impact of severe weather and other extreme events on grid stability and asset performance. Real-time analytics calculate the associated human, financial, and regulatory costs for fast and informed decision making. Intuitive satellite and plant-level views offer alerts, instant analytics, remedial action scripts, and direct links to workflow that can be initiated by users.

HALFWAY SOLUTIONS ARE FOR HALFWAY CRISIS MANAGEMENT

Sure, you've got data. You have analytics. You've got maps. You have access to weather and crisis information. You've got processes to initiate crisis management workflows. There are even real-time sensors on some of your assets giving you their status in real-time.

Unfortunately, all the key parts and pieces are in separate systems. They lack integration. They lack a common interface for taking action.

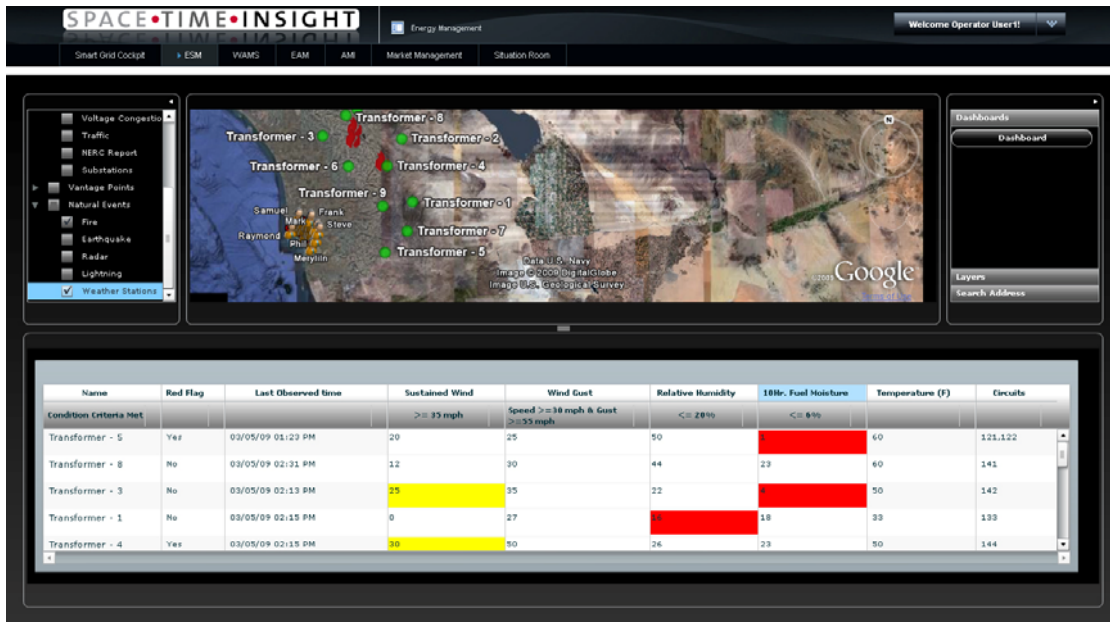
Crucial elements are missing, starting with visual understanding of your operations in space and time. Automated ability to see the human impact, financial liability, and regulatory issues associated with each event and asset is either non-existent or not real-time. The most important may be the lack of tools for setting informed priorities and taking fast action -- from a single portal and a single screen.

There is a saying, "a leader is one who sees more than others see, who sees farther than others see, and who sees before others see." Leaders are also doers. You want to have the most insight to make the best decisions you can as fast as you can in a crisis situation. You want to take the most effective, most timely, most pivotal actions you can to minimize negative consequences. You want to have information about human costs - like the impact on hospitals and schools. You want information about financial liabilities, probable litigation, or regulatory penalties.

You wouldn't drive your car by watching the map on your GPS navigator instead of looking through the windshield. Why would you make operations decisions based on two-dimensional, partial abstractions of reality? Even fruit bats with brains the size of marbles use sonar to capture a real-time, physical view of where they are going.

Space-Time Insight Crisis Composite will broaden your perspective with visual reality and improve your ability to take fast, informed action in emergency situations.

Space-Time Crisis Composite (STCC) enables rapid, prioritized response to current, evolving, and pending natural and man-made emergencies. The software displays real-time, location-intelligent operating status, impact analysis, crew locations, and recommended action scripts on satellite images linked directly to workflow systems to deliver an intuitive crisis management solution for fast, prioritized action in emergencies.



Space-Time Crisis Composite - Features

- **Alerting:** Track weather (hurricane paths, lightning strikes, floods, cloud cover), other potential natural calamities (wildfires, earthquake aftershocks), and man-made disasters using a space-time dashboard
- **Predictive Path Analysis:** Predict a range of trajectories for natural and man-made calamities and identify critical infrastructure assets in the path
- **Impact Analytics:** Understand the human cost, financial liability, and regulatory issues associated with each calamity and asset
- **Situational Awareness and Alerting:** Interface with SCADA systems to display live, location-based performance data. See multi-view situation screens for simplified, 360° full context, multi-data layer views. Receive automated alerts based on thresholds and event correlation
- **Guided Remedial Procedures:** Display online pop-up scripts to guide execution of remedial action schemes mandated by best practice or critical infrastructure regulations
- **Root Cause Analysis:** Play back events on-screen to support root cause analysis and gain insight to preventive actions
- **Asset Data Access:** Instant access to critical assets complete with real-time and historical data and analyses
- **Space-Time Crisis Management Guidelines:** Repository of configurable operating thresholds, exceptions, condition-based alerts and procedures

Space-Time Crisis Composite - Customer Benefits

- Improved ability to deliver safe and reliable energy to customers, prevent economic disruption, and minimize the negative consequences of calamities
- Ability to launch proactive storm, fire, and earthquake preparedness efforts
- Timely power rerouting to keep the lights on in flood, hurricane, and wildfire crises
- Timely deactivation of high voltage transmission lines close to forest fires
- Timely re-routing of power and islanding to prevent cascading outages
- Greater ability to manage, or avert, potential system emergencies through guided response to advanced warnings about system stress levels
- Improved ability to prioritize service restoration via understanding associated human, financial, and regulatory costs
- Faster action and reaction to real-time system conditions
- Reduced probability of regulatory fines and penalties